

Lymphocytic Choriomeningitis

What is lymphocytic choriomeningitis?

Lymphocytic choriomeningitis (LCM) is a disease caused by the Lymphocytic Choriomeningitis virus (LCMV). The virus may be found in about 5% of wild mice throughout the United States. However, the virus can also infect pet rodents (such as mice, rats, hamsters, gerbils, guinea pigs).

What are the symptoms of lymphocytic choriomeningitis?

People who are infected with LCMV may have no symptoms. However, infection sometimes causes an illness that may range from mild to life-threatening. The initial phase of infection can be a flu-like illness. Following a few days of recovery, the second phase of the disease occurs. This may include fever, headache, nausea, vomiting, stiff neck, confusion, drowsiness, and paralysis.

How is LCMV spread?

Urine, feces, saliva, or blood of an infected house mouse (*Mus musculus*) or pet rodent may contain LCMV. People may become infected with LCMV by contact (through a mucus membrane or break in the skin) with fresh urine, droppings, saliva, or nesting materials from infected rodents. Person-to-person transmission has not been reported, with the exception of infected mother to fetus, and by organ transplantation.

Who gets LCM?

LCM is very rare in humans in the United States. People who have unprotected contact with rodents or their waste/bedding (e.g., owners of pet rodents; laboratory workers who handle infected animals) are at higher risk of infection. Virus is present in the blood and tissues of infected people - organ donation recipients have been infected if the donor was carrying the virus. People who have weakened immune systems (e.g., HIV-positive persons; organ-transplant recipients) are at higher risk of severe disease if infected.

How soon after exposure do symptoms appear?

The symptoms of LCM usually occur 8 to 13 days after exposure.

How is LCMV infection diagnosed?

There is no routine test for LCMV infection, but special laboratory tests do exist.

What is the treatment for LCM?

There is no specific treatment. Severe infection may require hospitalization and supportive treatment.

How can LCM be prevented?

LCMV infection can be prevented by avoiding contact with house mice - rodent-proofing the home, safe cleaning practices, and trapping wild rodents reduce the risk. To clean mouse droppings, soak the area with a bleach solution (1/4 cup bleach in 1 gallon of water) first and then wipe them up to prevent the virus from becoming airborne.

Clean rodent cages outdoors and keep rodents away from food preparation areas. Always wash hands after handling pet rodents or their cages/bedding. Never kiss or handle a pet rodent close to the face. Young children should be closely supervised when cleaning cages or handling rodents. Immune compromised and pregnant persons should avoid contact with rodents.